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AGO ltr 29 Apr 1980

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IN REPLY REFER TO

AGAM-P (M) (20 Dec 1968) FOR OT UT 683151

30 December 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 63d Signal Battalion, Period Ending 31 July 1968

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3. To insure that the information provided through the Lessons Learned Program is readily available on a continuous basis, a cumulative Lessons Learned Index containing alphabetical listings of items appearing in the reports is compiled and distributed periodically. Recipients of the attached report are encouraged to recommend items from it for inclusion in the Index by completing and returning the self-addressed form provided at the end of this report.

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*Kenneth G. Wickham*

KENNETH G. WICKHAM  
Major General, USA  
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DEPARTMENT OF THE ARMY  
HEADQUARTERS 63D SIGNAL BATTALION  
APO San Francisco 96308

SCCPV-NG-PB

31 July 1968

SUBJECT: Operational Report of Headquarters 63d Signal Battalion  
(Army) for Period Ending 31 July 1968, RCS CSFOR-65 (R1)

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1. Section 1, Operations: Significant Activities.

a. General:

(1) This reporting period found the 63d Signal Battalion in the first relatively stable mode of operation since the 459th Signal Battalion had begun operations in the Phu Bai area late in January 1968. All major infusions had been completed and the 63d Signal Battalion concentrated its primary effort on quality control, unit integrity, and upgrading its operations in performance of its mission.

(2) The mission of the 63d Signal Battalion was fairly well defined during this period. Although not supported by Department of the Army Doctrine, the 63d Signal Battalion has, and continues to perform a multiplicity of missions. The battalion satisfies some of the requirements normally assigned a Corps Signal Battalion as it provides dedicated communications between Headquarters, Provisional Corps Vietnam and its major subordinate tactical elements. The battalion provides some support normally associated with a Division Signal Battalion as it provides systems between Division Headquarters and Brigade size units. It provides post-camp-station type support normally provided by a TDA unit or a post signal organization. And last, but not least, it fulfills its primary mission of providing area support. Although not specifically designed or staffed to operate in the manner described above, the 63d Signal Battalion has successfully fulfilled its commitments, backed up wherever required with additional resources from the 21st Signal Group and the 1st Signal Brigade as a whole.

(3) The organizational structure of the battalion to include organic, assigned, and attached units under the battalion's operational control are listed in Inclosure 1.

b. Activities:

(1) On 1 May an AN/GRC-163 system was established between Landing Zone Vegal and Fire Support Base Bastogne in support of 101st Airborne Division requirements.

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(2) On 8 May construction was completed on a 42 foot AB-216 Tower at Dong Ha Signal Site. The original intent was to extend the tower to its maximum height. The Air Force Compound Commander imposed a height limitation since warning lights were not allowed due to blackout requirements and additional height was considered to pose a serious hazard to aircraft in the local area.

(3) On 10 May 17 more men from the 588th Signal Company were sent to Wunder Beach. Their mission was to construct an added signal center programmed to support elements of the 26th General Support Group, 3/5 Cavalry Regiment and the 14th Engineer Battalion.

(4) On 13 May the battalion received authority to remove its AN/MRC-54 from Signal Hill. This equipment had been positioned to provide communications in support of Operation Delaware. Radio contact had been made between Signal Hill and Phu Bai and Camp Evans respectively. Signal levels were excellent, proving that systems in support of operations in the Shau Valley could be installed if required. On 14 May the equipment was lifted off the hill terminating the battalion's participation in Operation Delaware.

(5) On 15 May two AN/MRC-112 Radio Terminals were deployed, one to Quang Tri Airfield and the other to Cuu Viet Port. A four channel system was installed effective 16 May, providing a reliable path for telephone communications. This system was installed after attempts by the Marines to install an AN/TRC-27 system had failed to provide an adequate path.

(6) On 17 May AN/TRC-29 equipment and operating personnel arrived at Phu Bai enroute for Quang Tri and Dong Ha to establish a 45-channel microwave system between those locations.

(7) On 18 May a 40' X 40', six inch thick, concrete pad was completed at the Wunder Beach Signal Site to house the signal vans. Because of the high water table and the sand in the area the pad was required to form a solid foundation over which adequate bunker protection could be built over the signal equipment.

(8) Effective 19 May all systems were cutover from the old Quang Tri Airfield Signal Site to the new signal complex constructed by the 588th Signal Company. Systems involved were 77UH9D, 77UH3K, 77UH3L, BBH76, BBH74, BBH77, BBH82, and BBH99.

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(9) On 22 May LTC Graham, 63d Signal Battalion Commander gave the 583th Signal Company Commander formal operational control over the Army communications facilities at Khe Sanh. These facilities consisted of an AN/TRC-129 Tropo terminal terminating a system between Khe Sanh and Hue. The remote location of the terminal had made direct control by the battalion unwieldy. Control was therefore delegated to the Commander of the 583th Signal Company, who, due to his proximity to Khe Sanh, could exercise more direct control over the team.

(10) On 23 May Major Suzuki, USAF, arrived in Phu Bai to investigate the possible requirement for increased switchboard capability at Camp Evans and Camp Eagle. Upon completion of his visit he recommended the installation of an AN/ITC-9 at Camp Evans while holding any recommendation for expansion at Camp Eagle in abeyance.

(11) On 23 May an AN/ITC-7 telephone switchboard facility was installed at the Wunder Beach Signal Site. This facility provided telephone communications to the logistic support units at Wunder Beach.

(12) 28 May was a disastrous day for 63d Signal Battalion VHF communications. Torrential rains caused 11 extended system outages. Seven of these were suffered at the Quang Tri Air Signal Site. The reason allowing such a multiple outage was the fact that the large signal complex being constructed under ground level had not been covered over due to a shortage of construction materials. Drainage had been provided for in the complex but proved inadequate to carry off the deluge of water. The effects of the unseasonable storm could have been minimized by temporary covering, i.e., canvas. To prevent a recurrence, protective covering was added after the storm had subsided. Since then there has been no flooding.

(13) On 29 May the AN/TRC-29 microwave system between Dong Ha and Quang Tri Air became operational, radio to radio.

(14) On 30 May six 18,000 BTU air-conditioners arrived at Phu Bai. These air-conditioners were provided in an attempt to offset the heat failure problems that were becoming increasingly serious in the battalion. An attempt was made to use these air-conditioners to cool bunkered complexes where signal equipment had been consolidated. The air-conditioners proved to be inadequate for anything more than a single van. Where they were used for a single van they greatly reduced the outages due to the effects of overheating.

(15) On 1 June a 12-channel VHF system was activated between Landing Zone Betty and Camp Evans. This system was designated BBHLA. System BBH91 between Quang Tri Air and Landing Zone Betty was deactivated and the Quang Tri Air equipment moved to Camp Evans to establish the BBHLA system.



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(16) On 2 June two additional DS. switchboard positions were installed in the Phu Bai Dial Telephone Exchange. The addition increased the total positions to eight and resulted in a significant reduction in pickup time, breakdown time, and service time on calls to other local or distant switchboards.

(17) On 3 June the installation of the 45-channel AN/TRC-29 microwave system was completed between Quang Tri and Dong Ha. This system provided an additional 22 circuits for Army area use and 23 for DCS use.

(18) On 7 June the scheduled evacuation of the Khe Sanh Signal Site began with the air evacuation of two 45KW generators.

(19) On 9 June General Westmoreland came to Phu Bai for his farewell ceremony at Provisional Corps Vietnam Headquarters. The 63d Signal Battalion furnished personnel for the Honor Guard and also provided refreshments and a tent shelter from the battalion mess for the visiting dignitaries.

(20) On 9 June the equipment required for the opening of a commcenter facility at Cua Viet Port arrived at Cua Viet for installation (two TT-4's and two TT-76's).

(21) On 11 June commcenters were activated at the Quang Tri Airfield Signal Site and the Munder Beach Signal Site. These facilities were required to support the rapid buildup of logistic support units at those two locations.

(22) On 12 June Mr. Williams, 1st Signal Brigade, CSEMA, informed the battalion that 12 each AN/FGC-25X teletype sets were ready for pickup from the MACV Commcenter. The battalion sent personnel to inspect and escort the equipment. This equipment was programmed to replace the tactical equipment in use in the Phu Bai Army Area Commcenter.

(23) On 17 June Mr. Williams and Mr. Knight, 1st Signal Brigade CSEMA, visited the battalion. The purpose of their visit was to survey possible locations for the construction of a new commcenter. Mr. Williams indicated that an INCS EE building was available for that purpose. In addition, they checked on the bill of materials for the Autodin Code V installation in the Army Area Commcenter.

(24) On 19 June Mr. Craig and Mr. Wilson from the Communications Laboratories at Fort Monmouth, New Jersey arrived in Phu Bai to demonstrate a new Yagi antenna developed for use with the AN/TRC-163 Radio Terminal.



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(25) On 20 June the 77UT47 TRC-129 Tropo system between Phu Bai and Da Nang was deactivated. This made the Phu Bai terminal available for a future shot into the Dong Ha or Landing Zone Stud area and freed the Da Nang terminal for future deployment as required.

(26) On 24 June three Collins Radio Field Representatives arrived at Phu Bai to assist in the installation of new TRC-129 systems. Those in the party were Mr. Gene Heister (1st Signal Brigade Operations Directorate), Mr. J.C. Gray (337th Signal Company), and Mr. Bill Leighty who remained in the Phu Bai area as the local field representative.

(27) On 24 June the battalion was notified by 1st Signal Brigade that three more AN/FGC-25X teletypewriter sets were enroute to Phu Bai. This information proved to be incorrect. Although we had been told that 12 sets would be released from the MACV commcenter only nine were ever received. This halted the program of restoring the tactical teletype equipment to the signal vans from which it had been taken.

(28) After much discussion of the possible employment of the Da Nang TRC-129 terminal it was decided on 25 June to send it to Dong Ha and establish a system between Phu Bai and Dong Ha.

(29) On 26 June installation was completed of nine AN/FGC-25X teletype sets in the Phu Bai Army Area commcenter. These sets replaced tactical equipment with the intent of returning the equipment to the signal vans from which it had been taken. However, the event was less satisfying than had been hoped as only nine of the 12 programmed FGC-25's were received and no spare parts. Arrangements have been made to include FGC-25 parts in the PLL. However, until such time as the supply system catches up with the demand the TT-4's and TT-76's released by the FGC-25's must be maintained available for instant use in the event of equipment failure.

(30) On 27 June a VHF system between the 3d Marine Division and the 108th Artillery Group in Dong Ha was installed. This system was designated BBH3A and was installed to support communications requirements for operation Thor.

(31) On 28 June an AN/TRC-129 terminal was deployed to Dong Ha to establish a system between Dong Ha and Phu Bai.

(32) On 28 June an AN/GRC-26 radio shot between Dong Ha and Da Nang was installed. This backup radio system along with the VHF system BBH3A completed the installation of communications facilities in support of Operation Thor.

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(33) On 28 June the AN/TRC-129 terminal that had been located at Da Nang arrived at Dong Ha for its subsequent use on the Dong Ha to Phu Bai System.

(34) On 30 June authority was received to deactivate system 77UT4H between Hue Tropo and Khe Sanh. This action freed the Khe Sanh terminal for evacuation and rehabilitation and freed the Hue terminal to pick up the system to the Landing Zone Stud area. The Hue to Landing Zone Stud system was required as part of the communications support of the Khe Sanh evacuation and the establishment of a combat base in the LZ Stud area. Attempts had been made for several days to install a system between Phu Bai and Landing Zone Stud, but the shot was marginal and would not carry teletype. When it became evident that the Phu Bai to Landing Zone Stud system would not improve it was decided to try a system between LZ Stud and the Hue Tropo site. This system proved most satisfactory. The Hue to LZ Stud Tropo system was designated BHT21. With the installation of this Tropo system the Tropo configuration of the 63d Signal Battalion consisted of a system between Phu Bai and Dong Ha and a system between Hue Tropo and Landing Zone Stud.

(35) On 2 July the remaining equipment of the TRC-129 terminal at Khe Sanh was evacuated to Quang Tri. With the evacuation of the personnel and the equipment the battalion ceased its support of one of the most famous combat bases in Vietnam.

(36) On 3 July installation and cutover of a replacement AN/MTC-1 switchboard facility was completed by Company B, 37th Signal Battalion at Camp Evans. The deterioration of the original MTC-1 at that location had resulted in inferior subscriber service. The replacement MTC-1, once installed, increased the operational efficiency of the switchboard by 75 percent.

(37) On 4 July General Van Harlingen authorized the deployment of an AN/MSQ-73 technical control van for the Dong Ha technical control facility. This decision was made in order to upgrade the technical control of the DCS circuits for which the battalion has responsibility in the Dong Ha area.

(38) On 8 July authority was received to deactivate the systems that had been installed in support of Operation Thor. The VHF system between the 108th Artillery Group and the 3d Marine Division was closed down as was the backup AN/GRC-26 radio between Dong Ha and Da Nang. This action terminated the participation of the battalion in Operation Thor.

(39) On 10 July an AN/GRC-112 four channel system was established between the 160th Aviation Group at Camp Eagle and the battalion AN/MTC-1 at Gia La. This was installed as a training system and provided interim

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entry for the aviation group into the Army area system until such time as a cable could be laid between those two locations. A project for this cable was approved but encountered delays due to non-availability of materials and non-availability of a serviceable cable plow or trencher.

(40) On 10 July a tragic incident took the life of one of the men in the 588th Signal Company at Quang Tri when a hand grenade was thrown into a group of men and exploded. This incident is still under investigation. In memory of the deceased, the Quang Tri Signal Site was renamed in his honor.

(41) On 14 July the battalion was informed that the AN/MTC-9 was ready for shipment from Qui Nhon to Quang Tri. This facility is programmed to upgrade the service in the Quang Tri area.

(42) On 16 July the two Tropo terminals that had been freed by the recent equipment shuffle in the battalion area were sent to Da Nang for rehabilitation.

(43) On 17 July the Secretary of Defense and his party, including General's Wheeler and Abrams visited Provisional Crops Vietnam in Phu Bai. Communications facilities were prepared for their use by the 63d Signal Battalion, however, they were not utilized.

(44) On 17 July the battalion SYSCON facility relocated into an AN/MSC-25 van. This van provided an improved facility for the control and status keeping of the systems and circuits for which the battalion is responsible. In addition, the move represented a large improvement in facilities as well as an improved environment for the duty personnel.

(45) On 18 July Mr. Winslow and Mr. Campbell, 1st Signal Brigade completed a survey of the Gia Le area for an outside plant telephone distribution system. It was their opinion that the project, once the bill of material were on site, would take a signal construction platoon one week to install.

(46) On 27 July the OIC for the signal support team in support of Operation Somerset Plains was airlifted to Signal Hill. There he made preparations to receive the signal equipment and personnel of the team.

(47) On 27 July the equipment in support of Operation Somerset was airlifted to Signal Hill. A short time after the arrival of the equipment the BBH5A system was installed.

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(48) On 31 July the Secretary of the Army visited Provisional Corps Vietnam. Special circuits were seized and extended to locations which he visited to ensure a continuous communications capability.

c. Personnel and Administration:

(1) During the reporting period great advances were made over the problem areas of the previous reporting period in the areas of personnel and administration. Concerted effort by the battalion, ably assisted by the 21st Signal Group, reduced the number of personnel arriving in this battalion without the proper orders and records to an acceptably low percentage.

(2) The normal replacement stream began to operate for the battalion and replacement personnel from CONUS began to arrive in the unit. During the previous reporting period most of the replacement personnel were sent from other units in-country, creating problems in personnel records management and rotation humps.

(3) Financial support for battalion personnel continues to present a problem. The problem is less serious since personnel records are now in general under control, however, timely assistance is still hampered by the lack of a local finance office. To obtain financial assistance for personnel assigned north of Da Nang still requires each individual to travel to the 192d Finance in Da Nang if assistance is required in a reasonable amount of time. Timely disbursement of the monthly payroll continues to present a problem due to the lack of organic transportation and the wide dispersion of signal sites. Establishment of a local Finance Office and the assignment of organic aircraft to the battalion would solve the remaining problems in the area of financial support to battalion personnel.

(4) During this reporting period the battalion began to take advantage of local national hire. This program began slowly due to two factors. First, was the requirement to receive authority to hire local nationals in sufficient numbers to make it worthwhile. The second factor was the scarcity of the required skills available in the local labor market. The battalion is now using local nationals in the mess and in the motor pool. It is anticipated that the battalion will use local nationals as switchboard operators as they become available and are trained.

(5) Critical MOS shortages continue to exist in 72C switchboard operators and 72B teletype operators. The constantly expanding requirement for switchboards and commcenters aggravates an already serious shortage in these fields.

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(6) In-country mail service between Phu Bai and the battalion's higher headquarters in Nha Trang causes some serious hardships on the battalion. Some suspense dates which would normally allow the battalion adequate time to respond become unreasonably short when mail deliveries between battalion and Group headquarters take seven or more days. The only solution is not to depend upon the mail but to send couriers between the headquarters. This gives the battalion longer to work on the report, since a courier can normally get to Nha Trang in at least two days, but represents a waste in personnel resources.

d. Security:

(1) During the reporting period, 23 SECRET clearances were granted. No TOP SECRET or CONFIDENTIAL clearances were granted. Cryptographic access was authorized for 73 personnel. One security violation occurred during the reporting period.

(2) Command emphasis continued to be placed on communications security. Emphasis also continued to be placed on the construction and rehabilitation of reinforced bunkers both for personnel and equipment. A vigorous program of security inspection of both site physical security and safeguarding classified material remains in effect.

(3) The 63d Signal Battalion retained the responsibility for the defense of the Foxtrot Sector of the Phu Bai Defensive Perimeter. This sector was greatly improved in its defensive posture during the reporting period. Additional concertina wire was laid as well as tanglefoot, FUGAS, Claymore mines and illumination. All the fighting bunkers were completely constructed and a large command bunker was begun. This battalion controlled sector continued to be the most strongly defended area of the perimeter.

e. Safety:

(1) Command emphasis continues to be placed on all aspects of safety. The following recordable accidents occurred during the quarter: Personnel Injuries: One; Vehicle Accidents: Three. This represented a 75% decrease in personnel injuries over the past quarter, while the vehicle accidents were the same number as the previous quarter.

(2) Accident Exposure for the Quarter:

<u>MONTH</u>	<u>MAN-DAYS</u>	<u>MILEAGE</u>
May	Military - 27,745 Civilian 1,488	80,679

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<u>MONTH</u>	<u>MAN-DAYS</u>	<u>MILEAGE</u>
June	Military - 24,600 Civilian - 1,488	61,340
July	Military - 24,165 Civilian - 1,488	81,532
Total For Quarter	Military 76,510 Civilian 4,464	223,551

f. Training:

(1) Formal training continued to be a problem throughout the battalion. Contributing factors to the difficulties in maintaining a formal training program are expanded operational mission requirements, lack of adequate training facilities and the mobile tactical situation in support of PCV and its subordinate units. Roving training teams have been used with great success to train individuals on circuit restoration and on JANAP-128 Communications Procedures. The roving team concept has been successful since the team can be scheduled to visit all sites with minimum interruption of operations.

(2) The majority of the training within the battalion continues to be on-the-job instruction conducted at the unit, company, and site level. The OJT program remains tailored to meet the battalion's need in critical MOS fields.

(3) Maximum use has been made of school allocations provided by the Southeast Asia Signal School.

(4) Combat training has been stepped-up with the responsibility for the Foxtrot Sector of the Phu Bai Defensive Perimeter. All individuals performing duty on the perimeter have been given formal training conducted by the Sector OIC and his assistants on barriers, claymore mines, flares, techniques of patrolling, artillery adjustment and the care and use of all individual and crew-served weapons employed on the perimeter.

(5) During the reporting period the battalion has conducted 92 days of continuous operation with the minimum shift per individual being 12 to 16 hours.

g. Logistics:

(1) In general the logistic posture of the battalion improved greatly over that of the previous quarter. The majority of the equipment which had lost Property Book Officer identity during the move to Phu Bai was

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identified and Property Book Officers were able to effect positive control over their equipment. Those items which had not been located were placed on reports of survey. The increased stability of the battalion operation also assisted the Property Book Officers in the control of their equipment. As the area communications system built up it was less often required to shift property between units. Army support units began to arrive in the area. They began to provide support locally that had not previously been available. However, this support was limited by the lack of parts in the support units and the large numbers of equipments flooding the support units for repair from supported units trying to quickly improve their equipment posture. This situation is expected to improve as the support units are able to catch up with the demands for parts and as the original backlog of deadlined equipment is cleared from the shops.

(2) Adequate storage facilities which had been a serious problem during the previous reporting period was somewhat alleviated with the acquisition of a Butler Building Warehouse at Phu Bai. This building made vertical as well as horizontal storage possible. This enabled the battalion to identify items on hand, consolidate storage requirements and release CONEX containers back to the transportation system. Storage problems continue to exist in the 588th Signal Company at Quang Tri and in B Company 37th Signal Battalion at Camp Evans. Storage in these areas continues to be CONEX containers and tent facilities due to the lack of permanent type construction in those areas. The equipment thus stored is subjected to damage by the elements.

(3) Power equipment became a serious problem during this reporting period. Growing operational commitments, dispersion of signal sites, continuous use of over-aged generators, environmental factors (heat, sand, rain) and lack of spare parts, combined to reduce the power capability of the battalion to a dangerous low. Requisitions, controlled substitutions, and requests for assistance have been made through all appropriate command and staff channels. However, at the time of preparation of this report no relief has been received.

(4) Building materials are extremely hard to obtain. Consequently, many projects for bunkering or for construction expansion are at a standstill. It is understood that the majority of the required material is available through supply channels, however the time differential between the requirement and the fill is inordinately long due to the many approvals required, i.e., local engineers, 1st Log Command, and finally the Naval Support Activity in Da Nang. Another interesting sidelight concerning building material is the cancellation of the authority of units arriving in country after 31 January 1968 to be authorized "WAELOC" base camp development kits. These kits contained the materials required to construct tent frames, electrical light fixtures, plumbing



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equipment and assorted other items required to set up initial basecamp. Our experience in the Northern I Corps Tactical Zone has shown that these materials are extremely hard to acquire. The ability of the battalion to support programmed in-coming units will be severely limited if they arrive without the material required to establish facilities for their own unit. Consequently, the battalion is attempting through channels to have units coming into the Northern I Corps area of operations once again authorized this package.

#### h. Operations:

(1) During the reporting period the battalion participated in three major operations: Delaware, Thor and Somerset Plains.

(2) A summary of system activations and deactivations follows:

BBH99	QTA-CVT	15 May	Activated
BBH1A	CES-LZB	1 June	Activated
BBH91	QTA-LZB	1 June	Deactivated
BBM08	QTA-DGH	3 June	Activated
77UT47	PHB-DNG	20 June	Deactivated
BBT22	PHB-DGH	24 June	Activated
BBT17	PHB-QTA	25 June	Deactivated
BBH3A	DGH-DGH West	27 June	Activated
BBT21	LZ Stud-Hue Tropo	30 June	Activated
77UT4H	KSN-Hue Tropo	30 June	Deactivated
BBH3A	DGH-DGH West	8 July	Deactivated
BBH4A	GLE-EGL	10 July	Activated
BBH4A	GLE-EGL	26 July	Deactivated
BBH5A	EGL-Sig Hill	29 July	Activated

(3) Significant cable installations during the reporting period follow:

(a) 15 May installed 100 feet 100 pair cable between Phu Bai VHF patch panel and the Phu Bai Dial Telephone Exchange.

(b) On 22 May completed the installation of one span 600 pair cable, one span 300 pair cable, two spans 50 pair cable and one span 25 pair cable which had been damaged during enemy mortar attacks.

(c) On 25 May installation was completed of an additional vertical frame in the Phu Bai Dial Telephone Exchange to terminate additional cable.

(d) On 28 June an additional cable was installed to service the 63rd Signal Battalion Headquarters, 16th Military Police Group and the 616th Medical Company.

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(e) On 29 June an additional 100 pair cable was installed between the patch panel and the Phu Bai Dial Telephone Exchange.

(f) On 1 July approximately 900 feet of 50 pair cable was installed to service the 15th TC Battalion, 15th S&S Battalion and the 27th Maintenance Battalion.

(g) On 24 July installation was completed on 2 miles of cable, 25 and 50 pair, between the Gia Le MTC-1 switchboard and the 160th Aviation Group.

(4) During the reporting period cable surveys were conducted at the following areas:

Quang Tri Airfield

Camp Evans

Gia Le

Gia-Le Eagle tie cable

Landing Zone Sharon - Landing Zone Betty tie cable

Hue MACV - Hue Citadel Tie Cable

(5) The Phu Bai Dial Telephone Exchange experienced a tremendous increase in fill. At the beginning of the reporting period the fill was 417 mainlines. At the end of the reporting period this had been increased to 716 mainlines. This represented a 58% increase in fill over the previous quarter.

(6) The battalion continued to perform its operational mission in support of communications requirements in Northern I Corps Tactical Zone on a 24 hour a day basis. At the end of the reporting period the following facilities were established:

(a) VHF Systems - 22

(b) Microwave Systems - 1

(c) Army Tropo Systems - 2

(d) Switchboards - 7

(e) Commcenters - 9

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i. Visitors: The 63rd Signal Battalion Commander, LTC Elmer H. Graham, escorted the following distinguished visitors in the area of operations during the reporting period:

(1) On 12 May General Frizen, MACV J-6 and General French, CINCPAC CE, visited the Phu Bai Army Area Commcenter. They were accompanied on their orientation inspection by the Battalion Commander, 63rd Sig Bn and the Commanding Officer, 596th Signal Company.

(2) On 20 May General Van Harlingen, Commanding General, 1st Signal Brigade (USASTRATCOM) arrived at Phu Bai for an inspection visit of the 63rd Signal Battalion. The General visited the battalion headquarters, Relay Hill 180, Camp Eagle, Camp Evans and the signal facilities in the Phu Bai area.

(3) On 24 May Colonel McElwee, Commanding Officer, 21st Signal Group made his initial inspection visit to the 63rd Signal Battalion after assuming command of the Group. Included in his visit were the battalion headquarters area, signal facilities throughout the Phu Bai area, Winder Beach, Cua Viet Port, Dong Ha, Quang Tri Air Signal Site, Quang Tri City (MACV) Signal Site, Landing Zone Betty and Landing Zone Jane.

(4) On 25 May Colonel McElwee continued his inspection visit of the battalion facilities. He visited Camp Evans, Landing Zone Sally, Hue Citadel, Hue Tropo Site, Hue MACV Site, Camp Eagle, Fire Support Base Bastogne, Gia Le and Relay Hill 180.

(5) On 11 June Colonel McElwee, Commanding Officer, 21st Signal Group, again visited the 63rd Signal Battalion. On this visit he inspected the Phu Bai Telephone Exchange, the 596th Signal Company (Support) VHF Park, the TOC (Tactical Operations Center) Commcenter, the Phu Bai Army Common User Commcenter, the local Army AN/TRC-129 tropo terminals and the local Air Force AN/TRC-66 tropo terminals.

(6) On 4 July the Battalion hosted a visit by Colonel Tabor, Deputy Chief of Staff, USARV CE. His inspection visit included visiting all the battalion communications facilities in the Phu Bai Area.

(7) On 8 July General Van Harlingen, Commanding General, 1st Signal Brigade (USASTRATCOM) and Colonel Lohn of the 1st Signal Brigade Operations Directorate made an inspection visit to the 63rd Signal Battalion. This was the initial visit of Colonel Lohn who had recently joined the Brigade Staff.

(8) On 12 July, Colonel Anderson, United States Air Force, DCA-SAM was hosted during an orientation visit to the 63rd Signal Battalion. Colonel Anderson received a briefing from the SYSCON element of the S-3 Section and then toured the battalion facilities in the Phu Bai Area.

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(9) On 19 July General Terry visited the 63rd Signal Battalion and received an operations briefing from the SYSCON element of the S-3 Section. Following the briefing he toured the local Phu Bai facilities escorted by the Battalion Commander and the Commanding Officer of the 596th Signal Company (Support) charged with the responsibility of operating the facilities.

(10) On 21 July Major General Stilwell, Commanding General, Provisional Corps Vietnam visited the 63rd Signal Battalion and received a briefing from the S-3 Section and the Battalion SYSCON. He was then escorted by the Battalion Commander on a tour of the battalion's signal facilities in the Phu Bai area.

(11) On 26 July Colonel McElwee, Commanding Officer, 21st Signal Group, made an inspection visit to the 63rd Signal Battalion. He visited selected sites within each company's area of operation and commented favorably on the progress made since his last visit. Colonel McElwee's visit extended into the 27th when he departed Phu Bai to return to his headquarters in Nha Trang.

(12) On 27 July General Schweiter, Chief of Staff, Provisional Corps Vietnam, made an inspection visit of the Foxtrot Sector of the Phu Bai Defense Perimeter. He was escorted by the OIC Foxtrot Sector and the Acting Battalion Commander, 63rd Signal Battalion. This visit was significant since the 63rd Signal Battalion is assigned the responsibility for this defensive sector. The purpose of the visit was to inspect the improvements made in the defensive posture of the perimeter since the responsibility of the sector had been assigned to the battalion.

(13) On 27 July Lieutenant Colonels Pinto (1st Sig Bde Operations Directorate) and Palmore (USARV-CE) visited the 63rd Signal Battalion for the purpose of receiving an operations briefing and a tour of local battalion facilities. Their visit extended until the 28th when they returned to their respective headquarters.

(14) On 28 July Colonel Land, Deputy Chief of Staff, Provisional Corps Vietnam visited the battalion for the purpose of receiving an orientation briefing on the operations and capabilities of the organization. He was accompanied by the Acting Signal Officer, Provisional Corps Vietnam. He received a briefing from the S-3 Section and the SYSCON. He then toured the local facilities in the Phu Bai area, escorted by the Acting Battalion Commander.

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(15) On 31 July Colonel Richter, Signal Officer, Provisional Corps Vietnam, visited the 63rd Signal Battalion for the purpose of receiving an orientation on the battalion's deployment, operations, and capabilities. Colonel Richter received a briefing from the S-3 and the Battalion SYSCON OIC. He then toured the local communications facilities escorted by the Acting Battalion Commander and the 596th Signal Company Commander.

The above visits have been recorded because of the personages involved. They represent only a small fraction of the total visits made to the battalion during the reporting period. Other visitors included staff officers, technical advisors, coordinating teams and inspectors. The majority of these individuals came from USARV, 1st Signal Brigade and the 21st Signal Group.

j. Aviation: None

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SECTION 2. LESSONS LEARNED: COMMANDER'S OBSERVATIONS, EVALUATIONS,  
AND RECOMMENDATIONS

a. Personnel

(1) Awards

(a) Observation: Too often deserving individuals depart a unit or command without being recommended for an award which they justly deserve. This is normally the result of one of two causes. Either the local suspense system fails to alert the individual who should make the recommendation or the individual who should make the recommendation has failed to document sufficient facts to be able to write the recommendation.

(b) Evaluation: The awards program has a tremendous influence on personnel morale. Unfortunately, the effect is adverse when deserving individuals fail to be recommended while those who have done less receive awards.

(c) Recommendation: A suspense system should be established by each personnel section responsible for the maintenance of personnel records. This suspense system should not only alert the person responsible for making the recommendation, but should also follow up to determine the progress being made. Supervisory personnel should be briefed prior to initially assuming their duties on their responsibilities in documenting achievements and performances of their subordinate personnel. In cases where the supervisor leaves before his subordinates, this documentation should be passed to the incoming supervisor to give him a full background of the subordinate's performance.

(2) Briefing Packets

(a) Observation: Due to changing requirements, emergency leaves, etc., personnel are often displaced from key positions with little or no time for overlap with their replacement. This causes confusion and loss of operational efficiency as continuity of thought and operation is lost since the incoming individual is not totally aware of his responsibilities.

(b) Evaluation: Each assignment has its own particular duties. Local regulations and unique operations place requirements on personnel of which they may not be aware. They must be made aware of all facets of their individual duties in order to continue the operation with as little adverse effect as possible during their initial orientation phase.

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(c) Recommendation: All key personnel whether they be officer or enlisted, should prepare an information packet for the guidance of their replacement. If time allows the information can be passed orally and the packet kept as ready reference. However, if time does not allow, the packet can provide the key elements of essential information.

(3) Background Investigations

(a) Observation: There is a shortage of 72B, Commcenter Specialist, arriving in Vietnam with Background Investigations initiated.

(b) Evaluation: Due to the shortage of office equipment, qualified clerk typists, and travel restrictions, it is time consuming to prepare the paperwork for a Background Investigation in Vietnam, especially at Battalion Level.

(c) Recommendation: That each 72B be required to have a Background Investigation before he graduates from A.I.T. This could be done at the service school by qualified personnel, and upon the man's arrival at his unit in Vietnam all that would be required would be a records repository check with the USAIK liaison team at USARV in order to grant him a Top Secret clearance.

(4) Incomplete DD-398 (Statement of Personal History)

(a) Observation: Individual replacements are arriving in-country with either missing or incomplete DD-398 forms.

(b) Evaluation: When an individual is processed in by the S-2 section, his DD-398 is checked for completeness and signature. The majority of the time if this form is not complete or is missing, the individual is unable to furnish the information to complete the form. He often has to write home to obtain this information, which sometimes takes weeks to obtain.

(c) Recommendation: That unit personnel, officers, and POR boards in CONUS require each Vietnam replacement to have this form completed before he departs his stateside duty station and that overseas processing stations also screen records to insure that this form is still in the individual's 201 file and is complete and signed.

b. Operations

(1) Use of Helicopters in Residential Areas,



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(a) Observation: Recently in the city of Hue the battalion undertook a civic action to assist the population in removing pieces of a barge which had been hauling ammunition and exploded during Tet. Large pieces of the barge were blown into a residential area with one large piece landing on the roof of a Buddhist Temple. It seemed that the easiest way to remove the large piece of metal was to pull it off using a large helicopter. This was attempted but had to be discontinued when the prop wash from the helicopter blew thatched and tin roofs off adjacent houses. As a last resort the piece of metal was pushed off the roof using sheer manpower into the street below.

(b) Evaluation: The damage caused by the helicopter could have created a serious incident. An incident was averted only because the local officials explained to the people that we were attempting to clear their area so they could rebuild their temple. This satisfied the people and they graciously refused our attempts to help them replace their roofs.

(c) Recommendation: In any civic action requiring the use of helicopters in residential areas, a survey should be made of the local area to see if possible damage is likely or unlikely. The results should be brought to the attention of the local authorities so they can make the determination whether or not to continue the project. This will avert a possible incident which might be embarrassing to the U.S. Forces.

## (2) Expedient Grease

(a) Observation: It was observed that when lacking proper grease for the AN/TRC-24 transmitter blower motor, that grease designed for the M-16 rifle bolt made a good substitute.

(b) Evaluation: M-16 bolt grease was put in the grease cap of a TRC-24 transmitter motor. It was found that, due to the nature of the grease and its main purpose, it will not break down under heat. When the transmitter was turned off there was no sticky residue as a result of cooling. The transmitter which was causing trouble worked perfectly within a few seconds after the grease was used.

(c) Recommendation: That when proper grease for the TRC-24 transmitter blower motors is not available M-16 bolt grease be used as an expedient substitute.

## (3) Coaxial Cable used as Ground Strap

(a) Observation: It has been observed that under some conditions such as a lack of ground straps, when a normal ground strap is too short or when grounding conditions require a better conductor than the normal ground strap, the copper shielding of an unserviceable CR-1030/AU coaxial cable can be used as a substitute.

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(b) Evaluation: By stripping a piece of unserviceable coax the copper shielding can be slid off and the ends soldered for connections. The copper being a better conductor will prove more effective in a high resistance area. Another benefit is that it can be cut to any length up to 80 feet. The copper shielding can also be used as an inter-component ground for equipment which has been dismounted from vans.

(c) Recommendation: That some unserviceable and salvaged coax be retained for future use as grounds.

#### (4) Aircraft Support

(a) Observation: Aircraft support in behalf of the battalion continues to be inadequate.

(b) Evaluation: Although the battalion is provided its share of support from the 21st Signal Group aircraft assets the support is inadequate. The major problem is one of timeliness. The cases where aircraft support is most critical are emergency cases. These cannot be programmed. A good example is a case where a system goes down due to failure of a part that is not on site. Even if the part were in battalion resources it would not always be possible to transport it quickly to the required location. Additionally, much of the scheduled aircraft support is taken up in the transportation of visiting dignitaries and actually contributes little to the accomplishment of the battalion mission. The remote location of this battalion and the area over which it operates certainly justifies the assignment of aircraft in permanent support at least from the viewpoint of the battalion.

(c) Recommendation: It is recommended that a minimum of one utility helicopter and one fixed wing utility aircraft be assigned on a permanent basis to the battalion. Such resources would enhance the capability of the battalion to meet emergency requirements as well as reduce the time spent by key personnel attempting to "hitchhike" between locations. Overall command, control and operational efficiency would certainly be increased by this additional capability.

#### (5) Field Expedient Digital Peg Count Meter

(a) Observation: The non-availability of mechanical counters to be used in gathering manual switchboard statistics led to the modification of an inoperative elapsed time meter from a 10KW generator to function as an electrically impulsed digital counter.

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(b) Evaluation: The impulse contacts in a 10K<sup>1</sup> generator elapsed time meter, FSN 6645-557-0159, often become severely pitted and cause the meter to become inoperative. By carefully bending the crimped edge of the face of the meter back and removing the three knurled nuts from the electrical binding posts of the meter, the meter mechanism can be removed from the case. Once out of the case a sharp pair of diagonal cutters and good needle nose pliers can be used to rip out the balance staff and wheel. Removal of the impulse contacts and wiring of the impulse solenoid directly to the electrical binding posts makes it a pulsed counter. The ratchet springs on one of the anti-reverse pawls and the pawl itself should be removed to reduce unnecessary drag in the negative direction. Finally, a degree of dry friction should be introduced in the form of a spring around the shaft of the primary spur gear to reduce overshoot. The spring tension must be adjusted so that the unit when pulsed, will count exactly one digit. One pulse represents one tenth of an hour mechanically, but due to the inertia and lack of viscous damping, overshoot is inherent in the modified device. The spring can easily be adjusted to negate all inertial overshoot. Once calibrated the counter mechanism is reinserted into its housing and the face plate replaced. By carefully bending the meter face back, a degree of moisture proofing is reobtained. By wiring the unused form C contact of the dial wipe out key on the MTC-1 in parallel with the two other positions and these in series with the modified counter, i.e. elapsed time meter, and the 48 volt source from the frame van, an effective efficient, electromechanical counter is made fingertip available to the switchboard operator.

(c) Recommendation: That the peg count meter be fabricated and utilized as a field expedient in gathering statistical data when commercial digital counters are unavailable.

#### (6) Eliminating Excessive Dust

(a) Observation: Excessive dust is harmful to equipment and irritating to personnel.

(b) Evaluation: Excessive road dust can be reduced by the use of expedient methods. One such method is to use a salvage  $\frac{1}{2}$  ton trailer. By drilling a hole near the rear of the trailer and attaching a one inch pipe which is in turn attached to a pipe the width of the trailer a sprinkler system can be devised. Waste oil kept in a drum can be set in the trailer and connected to the one inch pipe. Then when the trailer is pulled through the area an even coat of oil is spread over the road surface.

(c) Recommendation: That the above expedient method be used to control excessive dust.

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(7) Transporting Electronic Equipment

(a) Observation: Repaired electronic equipment can become damaged while in transit back to the user.

(b) Evaluation: Serviceable electronic and teletype equipment picked up by the using unit in many cases must be transported seven miles over extremely rough and dusty roads. Equipment can be damaged, knocked out of alignment and get very dirty in transit. Rough and careless handling can negate the effort of the electronic repair to restore the equipment to an operational state as well as give rise to charges by the user that the electronic facility failed to repair the equipment.

(c) Recommendation: When moving electronic equipment extreme care must be exercised to prevent damage due to dirt or shock. One method that will reduce such damage is to place the electronic equipment on an old mattress or similar object and cover it completely with a tarp. This simple act will greatly increase the chances of returning to the unit with an operational piece of equipment.

(8) AN/TRC-129 Troop Equipment

(a) Observation: It was observed that a particular full-duplex circuit going from the Phu Bai Army Area Commcenter to Dong Ha over a TRC-129 system was suddenly functioning only as half-duplex. Equipment was good and several TH-5's were changed to no avail.

(b) Evaluation: It was observed at the TRC-129 that the transmit side was over modulating the receive side. The TRC-129 was set up for a normal Odb reading. The TH-5 at the Commcenter was putting out a plus 13 db instead of a minus 13 db. Inherent in the circuit, changing of the TH-5's did not correct the situation. The TRC-129 turned his level down to minus 33db, which compensated for the over modulation and the circuit returned to full duplex operation.

(c) Recommendation: Commcenter circuits feeding back on themselves and using a TRC-129 system need not always have a bad TH-5. On a TRC-129 adjustments can be made right on the equipment unlike on a TCC-7.

(9) Mobile A. Frame

(a) Observation: A requirement existed for constructing a simple device capable of lifting heavy loads to assist in building bunkers required for signal sites where engineer support was not available.

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(b) Evaluation: At the Camp Evans signal complex the unusually large construction demands upon the company personnel generated an almost constant need for material handling equipment which was not readily available in that area. The requirement persisted and it became apparent that, in order to complete construction of the Camp Evans site a piece of equipment capable of lifting several hundred pounds, transporting it to the desired location and raising it to the required height would have to be devised. Of the various devices proposed the A Frame described below promised to be the simplest to construct yet rugged enough for the job. Construction is as follows:

Material Required: (Less miscellaneous hardware):

- 1 ea Truck 2½ ton w/winch
- 2 ea 12½ foot sections 2" pipe, schedule 40 or 60
- 1 ea snatch block, 8 to 10 diameter
- 2 ea 25 foot lengths of wire rope
- 2 ea eye bolts w/one inch diameter eye

Preparation:

Heat and flatten about six inches of each end of the two pipe sections taking care that the narrow sides of the pipe are on the same plane.

Drill a one inch hole through the flattened parts of each pipe section 1 and 5/16 inches from the ends.

Weld one eye bolts to each pipe section approximately four feet from end on a plane with the narrow edge of the flattened pipe.

Remove lifting shackles from blocks on front bumper of truck.

Assembly:

Place pipe sections side by side with eye bolts up and aligned.

Attach long end of pipe (measured from eye bolt) to outside edge of lifting shackle blocks.

Bolt snatch block between short sections of pipe sections

Affix one end of wire rope to eye bolts.

Pull 15 to 20 feet of cable from vehicle winch and engage in snatch block pulley.

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Raise pipe sections to desired position and attach free ends of wire rope to rear lifting shackles insuring ropes are at approximately the same tension.

Lifting device is now ready for use.

(c) Recommendation: Carefully constructed and wisely used, the simple device described above should give years of reliable service in handling loads up to about one half ton.

(10) Field Expedient Illumination

(a) Observation: The 63rd Signal Battalion has the responsibility for the defense of the Phu Bai area of the perimeter known as the Foxtrot Sector. It has been impossible to install perimeter lights due to the nonavailability of materials and the lack of power.

(b) Evaluation: A field expedient method of providing illumination was devised that is both simple and provides adequate light for the optimum period of time. The method is to bolt together two sections of 24" metal culvert to form a half circular reflector. This is anchored in the ground with six inch engineer stakes. A Grade #3 aerial flare is suspended from the horizontal stake. The flare is activated by attaching a thermite or trip flare grenade with electric blasting cap, attached to wire (old claymore wire is very good for this purpose) which is run back to the bunker. WD-1 wire may be used but a 12 volt battery is required. Using claymore wire, the claymore detonating mechanism can be used. This flare gives approximately three to four minutes of three million candlepower of illumination.

(c) Recommendation: As a field expedient where illumination is required at a defensive position the method used above is highly recommended. Care must be taken to reflect the light forward of the defensive position so that the troops on the line are not blinded when the flare is detonated.

(11) Floating Bridges

(a) OBSERVATION: Floating bridges were installed over a creek connecting areas of the Foxtrot Defensive Sector in order to provide easy access between the two parts of the sector. These bridges were constructed when the creek was at a high level but when the water level dropped the bridges actually became suspended above the water. This made them unsafe for foot traffic and placed great stresses on the bridge structure itself.

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(b) EVALUATION: When constructing floating bridges consideration must be given to the maximum high and low water levels. This variable must be incorporated in the construction so that the bridge will rest on the water regardless of the level. If this is not accomplished the bridge will become unsafe and may even be damaged due to the stress placed on it.

(c) RECOMMENDATION: When constructing floating bridges expert advice should be solicited from knowledgeable persons on local weather conditions and water levels.

#### (12) Marking of Coaxial Cables

(a) OBSERVATION: There have been instances where coaxial cables have been inadvertently connected to the wrong antenna at the antenna end where several systems are located on the same antenna tower.

(b) EVALUATION: It is a standard practice to mark coaxial cables at the equipment end. It is also standard practice to mark the coaxial cables at the antenna end. However, where several systems are terminated on the same antenna tower it is possible and has happened that a pair of coaxial cables actually be fitted on the wrong antenna. This is especially a hazard where new inexperienced personnel are trouble shooting coaxial cable.

(c) RECOMMENDATION: It is recommended that not only the coaxial cable be marked but the antenna connections as well. This will provide added security against the possibility, however remote, that the coaxial cable be inadvertently connected to the wrong antenna.

#### (13) Standard Telephone Switchboard Operators Headset Noise

(a) OBSERVATION: The Standard Telephone Switchboard Operators Headsets introduce noise after prolonged use, due to the moisture from the switchboard operators breath. Eventually they become so noisy as to become unusable.

(b) EVALUATION: Rather than suffer from a shortage of headsets there is a field expedient that will return the headset to use. The carbon microphone in the headset can be replaced with the carbon microphone from a TP-236. This will eliminate the noise and increase the sensitivity. However the TP-236 microphone is larger than the standard and must be held in place with electricians tape. The number of holes cut in the tape over the microphone determine its sensitivity.



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(c) RECOMMENDATION: It is recommended that the above field expedient be used only when required by emergency conditions. Although the method described will provide adequate service it is not intended as an approved method of operation. Standard microphones should be replaced as soon as possible or the entire headset replaced.

(14) Installation of FUGAS Devices

(a) OBSERVATION: The 63rd Signal Battalion has the responsibility for the defense of the Phu Bai perimeter known as the Foxtrot Sector. As part of the defense measures FUGAS drums are located along the front of the perimeter. Periodically a drum is fired to ensure that they are operational and also to replace them with fresh drums. On several occasions it was found that the drums failed to explode when voltage was applied to the firing mechanism.

(b) EVALUATION: Investigation revealed that different gauges of wire were being spliced together and that the splices were poorly made resulting in poor electrical contact.

(c) RECOMMENDATION: When dealing with electrical firing mechanisms designed to ignite FUGAS, careful attention must be given to continuity in the electrical line. The same gauge wire should be used whenever possible and splices must be tightly made to ensure good electrical contact. Failure to provide good electrical contact can result in failure of the drum to ignite, thereby allowing the enemy easier access to the defense perimeter.

(15) Incorrectly Calibrated Meters

(a) OBSERVATION: On AN/TRC-24 receivers, R-417, it was observed that during the adjustment of the B+ some receivers were adjusted to the correct meter reading and a power hum developed.

(b) EVALUATION: During lineups and checks when the B+ was adjusted to the proper 30 level a power hum was introduced. By listening to the order wire and adjusting the B+ to as near 30 as possible without a hum the hum could be eliminated. The evaluation was that the measure meters were out of calibration.

(c) RECOMMENDATION: In remote areas where maintenance support is austere calibration teams should be made available on a frequent recurring basis. Lineup by ear, though it may be temporarily effective is no substitute for proper electrical lineup using calibrated meters.

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(16) Ground to Earth Resistance Measurements

(a) OBSERVATION: Difficulties were encountered in the measurement of the ground to earth resistance of a newly installed ground system in the proximity of another already established and operating ground.

(b) EVALUATION: The ground to earth resistance of a recently installed ground system in the vicinity of the Phu Bai Dial Telephone Exchange (DTE) was recently measured, using the Triangulation Technique described in 1st Signal Brigade Regulation SCCVR 105-23 dated 17 Dec 67. Resulting measurements were confusing. Resistance measurements were somehow dependent upon the polarity of the measuring probes on the ground stakes. Further measurements indicated that there existed a small but measureable DC voltage between any two ground stakes. Thus the current flow resulting when resistance measurements were attempted produced misleading readings. This phenomena is felt to be due primarily to a potential gradient in the earth itself in the vicinity of the measurement. This gradient is set up by an already established ground system being used for the DTE. Thus, the Triangulation Technique may give inadequate and misleading results if taken in the vicinity of an already established earth ground system.

(c) RECOMMENDATION: Where a potential gradient in the earth may exist due to an established ground system in the proximity of the measurement, it is recommended that an alternate method be used such as the Ground Mogger method (See SCCVR 105-23).

(17) Removal of Vacuum Tubes Prior to Shipment of Signal Equipment

(a) OBSERVATION: All the vacuum tubes were removed from AN/TRC-29 equipment prior to its shipment by motor transportation to the Quang Tri area. Upon re-installing the vacuum tubes many problems were encountered in blowing the tubes.

(b) EVALUATION: The theory behind the removal of the vacuum tubes is sound as it is designed to prevent damage to the tubes caused by movement shock. However if the tubes are not replaced in the same positions they originally occupied problems will develop due to the differences in ages of the tubes as well as the different characteristics of supposedly identical tubes.

(c) RECOMMENDATION: When tubes are removed from signal equipment prior to shipment of the equipment they should be so marked as to ensure they are later replaced in their original position. This can easily be accomplished by marking the tube with a piece of masking tape marked with a number keyed to a schematic drawing of the tube locations.

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(18) Antenna Polarization

(a) OBSERVATION: When establishing a system for AN/MRC-112's it was required that the antennas have vortical polarization. There are no provisions on the MRC-112 antenna for vertical polarization.

(b) EVALUATION: In order to vertically polarize the antenna a hole must be drilled 90 degrees off from the original hole in the antenna boom. This will enable the boom to be affixed vertically on the mast.

(c) RECOMMENDATION: If a commitment arises for vertical polarization of a MRC-112 antenna, ensure that an additional hole is drilled to accommodate this before erecting the antenna.

c. Training: None.

d. Intelligence: None.

e. Logistics:

(1) Teletypewriter Stop Arm

(a) OBSERVATION: The stop arm is one of the most frequent component problems in the failure of teletype equipment.

(b) EVALUATION: The stop arm located on the code ring cage of the teletype equipment is one of the most used parts of the machine. When it wears down it causes misprinting on the page printer and hence garbled messages.

(c) RECOMMENDATION: In many cases the stop arm can be repaired by bending the arm or filing down the edges until the proper clearance is obtained which, when parts are not available, prevents deadlining the equipment.

(2) Excessive Oiling of Equipment

(a) OBSERVATION: Use of excessive oil on teletype equipment increases the rate of failures.

(b) EVALUATION: When repairing teletype equipment or any of equipment with moving parts, repairmen tend to use an excessive amount of oil on all moving parts. As time passes a sandy dust builds up on the parts causing sluggish operation, excessive wear on moving parts and eventual breakdown.

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(c) RECOMMENDATION: When oiling any equipment with moving parts use a very small amount of oil and do not let any exposed surfaces be coated with an oily film.

(3) Sandbag Deterioration

(a) OBSERVATION: It has been noted that sandbags at some signal sites deteriorate at a much more rapid rate than at others.

(b) EVALUATION: It is suspected, though not confirmed, that the different rate of deterioration of the sandbags between sites is the result of different chemical content in the soils and sands, different salt content, and different acid content.

(c) RECOMMENDATION: Sandbags are used by the hundreds of thousands throughout Vietnam and each bag that must be replaced represents a logistic as well as a financial waste. It is highly recommended that a sandbag be developed that is not only resistant to water damage but is also chemically treated to resist the chemical action of the soil or sand with which it is filled.

f. Organization: None.

g. Other

(1) Food distribution to Civilians

(a) OBSERVATION: Part of the civic action program of the battalion is to distribute food to needy local nationals which the battalion receives from charitable institutions and individuals in CONUS. It has been found that food which requires directions in its preparation prior to use can cause sickness in those who consume it.

(b) EVALUATION: The directions are often not followed, either because the individuals are unable to read English or because they do not have the ingredients or utensils required to follow the directions. Consequently the food is improperly prepared and sickness can develop.

(c) RECOMMENDATION: Only foods that can be eaten as they come from the package or container, without cooking or mixing, should be given in battalion level food distribution programs.

SCCPV-NG-PB

31 July 1968

SUBJECT: Operational Report of Headquarters 63d Signal Battalion  
(Army) for Period Ending 31 July 1968, RCS CSFOR-65 (R1)

3. Section 3, Headquarters, Department of the Army Survey Information.

Omitted.



ELMER H. GRAHAM  
LTC, SigC  
Commanding

1 Incl  
Organic, assigned,  
attached OPCON units

DISTRIBUTION:

- 1 - Assistant Chief of Staff for Force Development, Department of the Army  
(ACSFOR, D.), Washington D.C. 20310
- 1 - CG, USASTRATCOM, Fort Huachuca, Arizona 85613
- 2 - ACSFOR, D., with 1st Indorsement
- 2 - CINCUSARPAC, ATTN: GPOP-DT, APO 96558
- 3 - CG, USARV, ATTN: AVHGC-DST, APO 96375
- 1 - CG, 1st Signal Brigade (USSTRATCOM), ATTN: SCCVOP, APO 96384
- 1 - CG, USSTRATCOMBAC, Schofield Barracks, Hawaii, APO 96557
- 1 - CG, 21st Signal Group, APO 96240
- 1 - ea Staff Section, 63d Signal Battalion, APO 96308
- 1 - ea Subordinate Unit, 63d Signal Battalion

SOCFV-NG-OPT (31 Jul 68) 1st Ind

SUBJECT: Operational Report of 63rd Signal Battalion (Army) for Period  
Ending 31 July 1968 (RCS CSFOR-65) (RI)

DA, HEADQUARTERS, 21ST SIGNAL GROUP, APO 96240 25 August 1968

TO: Commanding General, 1st Signal Brigade, ATTN: SOCFV-OP, APO 96384

1. Transmitted herewith is one copy , Headquarters, 63rd Signal Battalion Report, subject as above.

2. Concur in the commander's observations and recommendations with the following comments and/or exceptions:

a. Reference Section 1, para b(10): Although USARV recommends an AN/MTC-9 at this location, this headquarters has recommended an AN/TTC-28 for this area.

b. Reference Section 1, para c(5): Critical MOS shortages in MOS 72B and 72C continue to exist within Group and have had a detrimental effect on operations within the Command. Some of the reasons can be attributed to frequently experienced short fill and delayed fill on monthly requisitions. The current shortage has led to OJT of less critical MOS's, and hiring of Vietnamese civilian switchboard operators to help operate the Long Distance Boards. Continued expansion of facilities due to increasing mission requirements necessitates alleviation of present shortages in these MOS's.

c. Reference Section 1, para h(4): Cable installation at Quang Tri Airfield to begin on or about 30 August 1968 pending receipt of operational cable plow from Thailand and BOM. Camp Evans survey has been conducted by the 41st Signal Bn but 1st Signal Brigade is engineering the project. The Hue MACV - Hue Citadel tie cable is to begin on or about 30 September 1968.

d. Reference Section 1, para h(5): 21st Signal Group has forwarded justification for expanding the Phu Bai DTE.

e. Reference Section 2, para a(2)(c): Requirement exists for preparation of guide packets as outlined in Appendix VI SOCFV Regulation 350-3.

SCCPV-NG-OPT (31 Jul 68) 1st Ind 25 August 1968

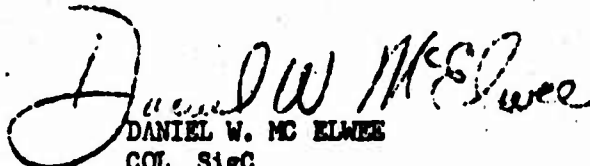
SUBJECT: Operational Report for 63rd Signal Battalion (Army) for Period  
Ending 31 July 1968 (RCS CSFOR-65) (RI)

f. Reference Section 2, para a(3)(c): Background Investigation prerequisite for MOS 72B is a Secret Clearance. The need for TS Clearance can only be determined at the LERCAT level. To initiate a Background Investigation for all 72B personnel would be excessively expensive and a waste. Security requirements should be indicated on Battalions Monthly Enlisted Personnel Requisition under column 35 as prescribed in AR 614-202.

g. Reference Section 2, para 2(4)(c): Assignment of one utility helicopter and one fixed wing utility aircraft on a permanent basis would be a waste of valuable aircraft as full use would not be realized.

h. Reference Section 2, para b(6)(c): Recommendation must be used with a common sense approach. Slippery roads, due to this practice, resulted in three traffic fatalities in the Nha Trang area.

3. This report is considered adequate.

  
DANIEL W. MC ELWEE  
COL, SigC  
Commanding



SCCPV-OP-CR (31 Jul 68) 2nd Ind

SUBJECT: Operational Report of Headquarters, 63d Signal Battalion (Army)  
for Period Ending 31 July 1968, RCS CSFOR-65 (R1)

DA, HQ, 1st Signal Brigade (USASTRATCOM), APO 96384

9 SEP 1968

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST,  
APO 96375

1. Subject report is forwarded in accordance with USARV Regulation 525-15.
2. The report has been reviewed and is concurred in as indorsed by this headquarters with the following comments and/or exceptions concerning referenced paragraphs:

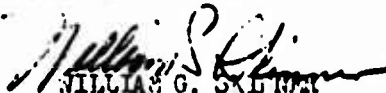
a. Paragraph 1h(5), p.13. 1st Signal Brigade has received the request for expansion of the Phu Bai Dial Telephone Exchange and is presently evaluating this request in light of both existing and anticipated station line requirements.

b. Paragraph 2e(3), p.29. Extensive research is being done to develop better sandbags. The 18th Engineer Brigade is now studying plastic sandbags. FM 5-15, Field Fortifications, prescribes methods for increasing sandbag life. To this end, a current practice in Vietnam is to paint sandbags with asphalt to prevent deterioration.

c. Paragraph 2a of 1st Indorsement. Two AN/TTC-7's are being installed at this location.

d. Paragraph 2g of 1st Indorsement. The 21st Signal Group's aviation section is scheduled to receive two U1 and one U-21 aircraft in April 1969. A MTOE is being processed which will authorize aircraft for the 63d Signal Battalion. The 21st Signal Group's aircraft should continue to be centralized at present locations and the distribution restudied when additional aircraft are received.

FOR THE COMMANDER:

  
WILLIAM G. SULLIVAN  
Colonel, GS  
Chief of Staff

1 Incl  
nc

Copy furnished;

Commanding General, United States Army Strategic Communications Command,  
ATTN: SCCOP, Fort Huachuca, Arizona, 85613

AVHGC-DST (31 July 1968) 3d Ind

MAJ Klingman/aja/LBN 4433

SUBJECT: Operation Report of Headquarters, 63d Signal Battalion (Army)  
for Period Ending 31 July 1968, RCS CSFOR- 65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 29 OCT 1968

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,  
APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1968 from Headquarters, 63d Signal Battalion (Army).

2. Comments follow:


a. Reference item concerning increased switchboard requirement, page 3, paragraph 1b(10); 1st Indorsement, paragraph 2a; and 2d Indorsement, paragraph 2c. A study has been completed by this headquarters concerning telephone switchboard requirements at Phu Bai, Camp Eagle, and Camp Evans. As a result of the study, action has been taken to increase the switchboard capacity in the area of interest as part of a larger project to upgrade and expand installation communications systems at Phu Bai, Camp Eagle, and Camp Evans.

b. Reference item concerning building materials, page 11, paragraph 1g(4). The WABTOC concept was discontinued by directive from DA dated 1 January 1968. Construction of tent floors and frames is a self-help project.

c. Reference item concerning incomplete DD Form 398, page 18, paragraph 2a(4): Concur except for that portion requiring overseas processing stations to also screen records for absent or incomplete DD Form 398. AR 601-210 and AR 601-270 require the completion of DD Form 398 at the time of induction or enlistment.

d. Reference item concerning incorrectly calibrated meters, page 26, paragraph 2b(15). Meters on the AN/TRC-24 are not subject to calibration by calibration teams.

FOR THE COMMANDER:

  
R. K. GOENTHER  
CPT. AGC  
ASST. ADJUTANT GENERAL

1 Incl  
nc

Cy furn:  
HQ 63d Sign Bn  
HQ 1st Sign Bde (USASTRATCOM)

GPOP-DT (31 Jul 68) 4th Ind

SUBJECT: Operational Report of HQ, 63d Signal Battalion for Period  
Ending 31 July 1968, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 10 DEC 1968

TO: Assistant Chief of Staff for Force Development, Department of the  
Army, Washington, D. C. 20310

1. This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

2. Reference paragraph 2a(8) (page 22): The information concerning AN/TRC-129 Tropo equipment is recommended for use in PS magazine, if supported by evaluation of USAMC.

FOR THE COMMANDER IN CHIEF:

*Col Shurt*  
Asst AG

1 Incl  
nc

Cy furn:  
CG USARV

63D SIGNAL BATTALION

ASSIGNED

Headquarters and Headquarters Company

Company B, 37th Signal Battalion

588th Signal Company (Support)

596th Signal Company (Support)

OPERATIONAL CONTROL

2d Platoon, Company B, 40th Signal Battalion

5 Tropo Teams, 337th Signal Company, 37th Signal Battalion

2 Microwave Teams, 37th Signal Battalion

4 AN/CRC-163 Radio Teams, 324th Signal Company, 36th Signal Battalion

194th MP Company, Security Detachment

ATTACHED

COMSEC Logistic Support Unit, 706th Signal Detachment (Rations, Quarters, UCMJ and Logistic Support)

Photo Team, 221st Signal Company (Rations and Quarters)

AUTOSEVOCOM Team, Regional Comm Group (Rations, Quarters, UCMJ, Logistics and Maintenance)

UNCLASSIFIED

Security Classification

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